

SEMICONDUCTOR DEVICE AND MANUFACTURE THEREOF

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INVENTOR- KAMOSHITA, MOTOTAKA

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PURPOSE: To block a soft error of a semiconductor device due to (alpha) rays, by adhering a film at a fixed region on a chip of a semiconductor device, dripping an (alpha) ray blocking material with a desired thickness thereon and hardening.

CONSTITUTION: In a wafer work process, e.g. a polyimide film 201 is applied on a place where is the part changing into a chip in the further and wherein (alpha) rays must be blocked. This is applied over the entire surface of the wafer 202 by a rotation applying method, next the polyimide on an unnecessary part is removed by a photo resist method with a hydrogeneous etchant. Next, the wafer 202 is changed into a chip 203 thereafter being mounted onto a normal base ribbon 204. Thereafter, after finishing a normal bonding process, a polyimide 205 dissolved in a solvent is dripped again on this polyimide film 201. A polyimide film 90W150(mu)m thick is formed taking a care that this polyimide 205 does not bulge out of the previously provided polyimide film 201 by the surface tension thereof. A polyimide film obtained in such a manner can sufficiently block (alpha) rays up to (alpha) rays with high energy as an (alpha) ray blocking material. A bonding connection part 207 is covered only with a mold resin 206 by hardening the polyimide in this state and sealing it by a mold resin 206. Therefore, even after a temperature cycle test, a good conduction state can be maintained without the removal of the bonding connection.

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